subsequently ~~reminded~~ rewound on the spool ~~10~~ 110. The detector can be a CCD camera or other photometry equipment having a signal output port connected to a data collecting and processing device. In a presently preferred embodiment the test strips or sticks on the tape are arranged to comprise at least 4 sensing areas: Acetone or BOHB (beta-hydroxyl-butyrate), progesterone, Nagase (beta-N-acetylhexosaminidase) or lactate dehydrogenase (LDH) and urea (milk urea nitrogen). It is however also contemplated to apply a tape having only one or two different sensing areas, such as sensing areas for the two most often applied compounds for indicating the physiological condition of the milk producing animal. Such compounds are e.g. compounds indicating mastitis and milk urea nitrogen.

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ABSTRACT

Please replace the paragraph on p. 40, beginning at line 4 with the following replacement paragraph.

A system for optimising the production performance of a milk producing animal herd is provided. The system comprises a milk sampling apparatus ~~means~~, an analytical apparatus ~~means~~ comprising separate equipment ~~means~~ for analysing compounds or parameters that in the presence of compounds indicative of the physiological or nutritional condition of the herd member, generates detectable signals, and apparatus ~~means for~~ directing a part of the milk sample (directing apparatus) to each separate equipment, ~~analysing means~~ which is controlled by data for the physiological and nutritional state of a herd member, so ~~such~~ that the directing apparatus ~~means~~ is only activated at pre-selected points in time or at pre-selected time intervals in the production and/or lactation cycles. Specific compounds are compounds indicative of mastitis, including beta-N-acetylhexosaminidase (NAGase) E.C. 3.2.1.52 and lactate dehydrogenase (LDH), protein balance, including milk urea nitrogen (MUN) and total protein, ketosis, including acetolactate, beta-hydroxybutyrate, acetone and lipids, fat and state in reproduction cycle, including a steroid or peptide hormone, ~~such as~~ e.g., progesterone. Furthermore, the system comprises equipment for signal detection ~~means for~~ to ~~recording~~ record and ~~processing~~ process the signals, ~~means for~~ equipment to store data ~~storage~~ and equipment to produce data output ~~means~~. ~~Additionally there~~

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~~are provided methods~~ Methods for optimising the production performance of a milk producing animal herd and an apparatus therefor.